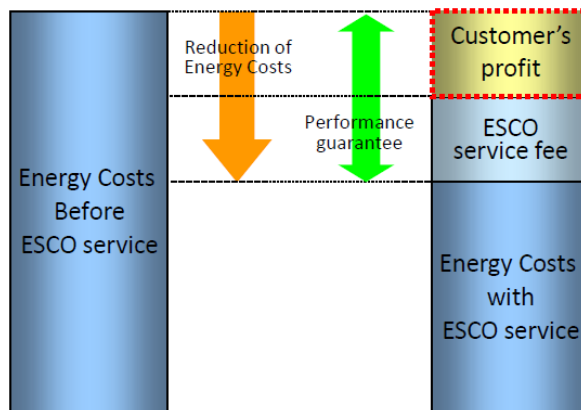


# ESCO and EMS in Japan

(Energy Service Company & Energy Management System)

Advantages of ESCO scheme	
<p><u>(Performance Contract)</u> ESCOs guarantee energy cost reduction</p>	<p><u>(Pay from the Savings)</u> Investment cost is provided by ESCOs and the service fee is covered by the saved energy cost</p>



Japan Association of  
Energy Service Companies

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## Preface

JAESCO (Japan Association of Energy Service Companies) is the only association in Japan which promotes ESCO projects and Energy Management Systems (EMS).

It was established in October 1999 in order to conduct the following activities;

- (1) Policy related lobbying activities
- (2) PR and marketing of ESCO concept
- (3) Training the staff of member companies
- (4) Information
- (5) International cooperation
- (6) others

And in May 2016, JAESCO included EMS as its business territories. EMS includes;

- (1) Visualization of energy consumption
- (2) supporting optimal operation of facilities
- (3) energy service provider (ESP)
- (4) on site generation of electricity
- (5) Asset outsourcing of utility facilities

EMS is recognized as the advanced scheme of ESCOs and expected to play important roles to tackle various issues. JAESCO is pleased to support these challenging businesses of member companies.

### Energy Audit

- Identify Energy Efficiency possibility
- Calculate saved energy & cost
- Estimate installation cost
- Calculate pay-back year



### ESCO

- Evaluate the credibility of customers
- Calculate long term payment plan of customers
- Design the Measurement & Verification Plan
- Design guarantee level of EE performance

### EMS

- Visualization of energy and water consumption
- Continuous supervision and analysis of operation of equipments
- Conduct overall energy business as general contractor
- Take outsource of asset ownership

## Governmental policies to promote ESCO

### METI (Ministry of Economy, Trade and Industry)

April 2007	published "Manual for local governments to introduce ESCO".
April 2010	revision of the energy conservation law and its ordinance. "large energy consumers must consider the performance contract provided by ESCOs in order to improve energy efficiency."
April 2014	revision of the ordinance of energy conservation law " large energy consumers must consider to introduce services of BEMS aggregators and/or ESCOs to improve load leveling performance."

### MOE (Ministry of the Environment)

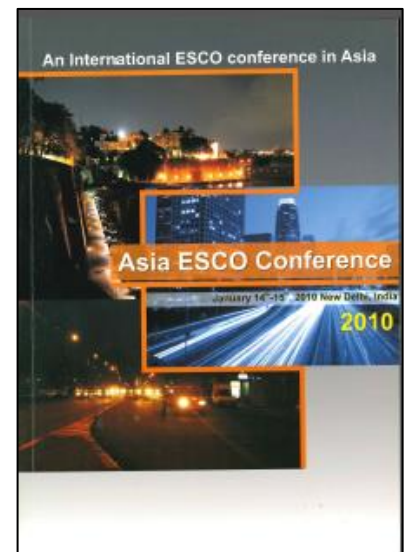
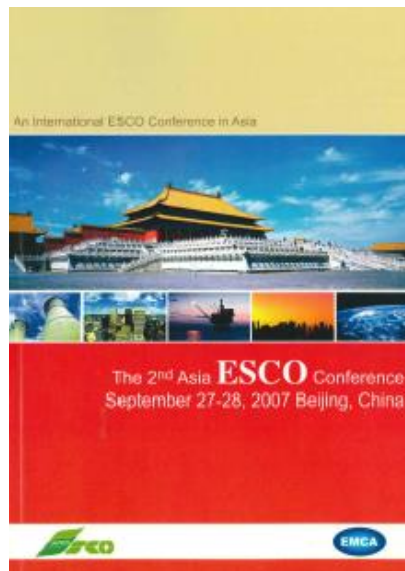
Dec. 2007	law for procurement of environmentally conscious products " Government and public organizations must consider to procure ESCO services for their buildings and facilities."
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### MLIT (Ministry of Land, Infrastructure and Transport)

May 2011	revision of manual for public buildings to introduce ESCOs
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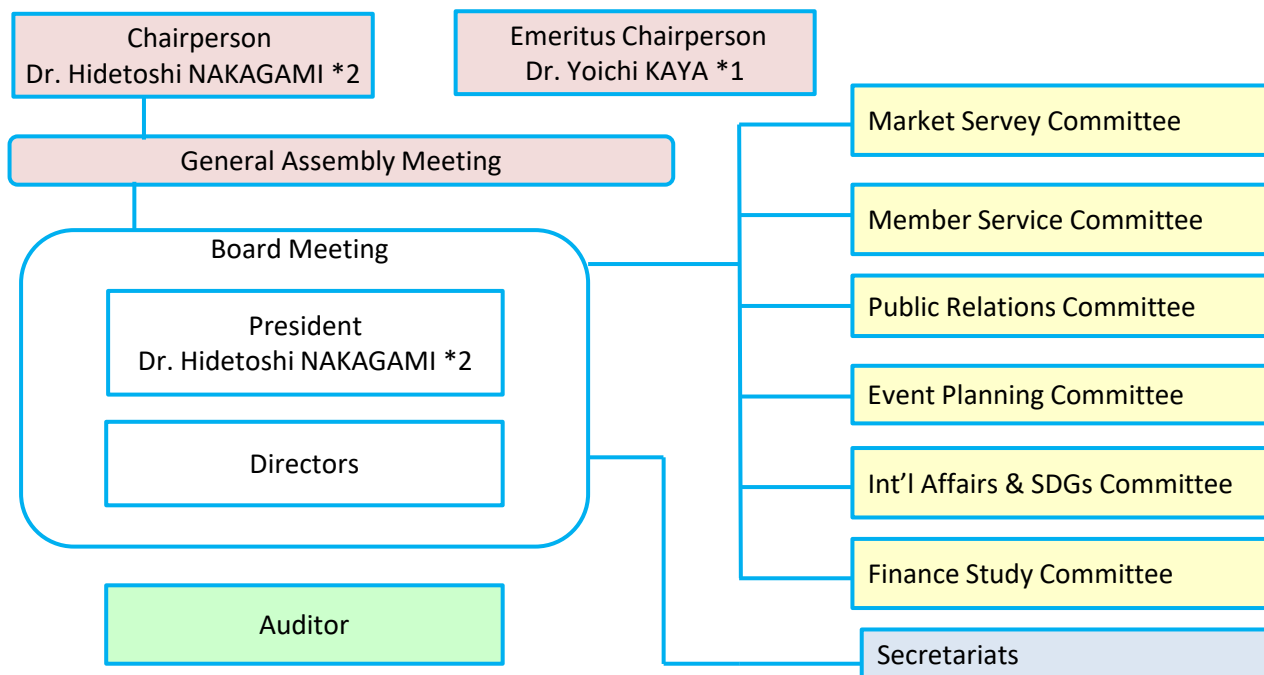
## JAESCO hosted 3 Asia ESCO Conferences

year	venue	participation			Subsidy from
		countries	persons	papers	
Oct., 2005	Bangkok	15	300	52	METI (Japan)
Sep., 2007	Beijing	10	200	41	METI (Japan)
Jan., 2010	New Deli	12	300	40	NEDO (Japan)



# About the Association

## Structure of JAESCO



\*1: Professor Emeritus of Tokyo University

\*2: Chairman of Jyukankyo Research Institute (JYURI)

## Members of JAESCO

Regular Members ----- 25 companies

Supporting Members ----- 49 companies

Friends of JAESCO ----- 20 individuals

Special Members ----- as the followings

Dr. Yoichi KAYA (Professor Emeritus of Tokyo University)
Jyukankyo Research Institute (JYURI)
Energy Conservation Center of Japan (ECCJ)
Daiichi Sogo Legal Office
Development Bank of Japan (DBJ)
Dr. Shuzo MURAKAMI (Professor Emeritus of Tokyo University)
Dr. Takao KASHIWAGI (Professor Emeritus of Tokyo Institute of Technology)
Dr. Yasunori AKASHI (Professor of Tokyo University)



### Market Trends in ESCO & Energy Management Business.

This survey is conducted annually to understand the current situation of the ESCO and energy management (hereafter: ESCO/EM) market. This year, the questionnaire was distributed by e-mail to 74 JAESCO member companies and 136 non-member companies, and responses were received from 115 companies.

Figure 1 shows the sales figures for ESCO/EM business in 2020. The total sales amount is 85.6 billion yen, of which his ESCO business is 48.2 billion yen and energy management business is 37.4 billion yen.

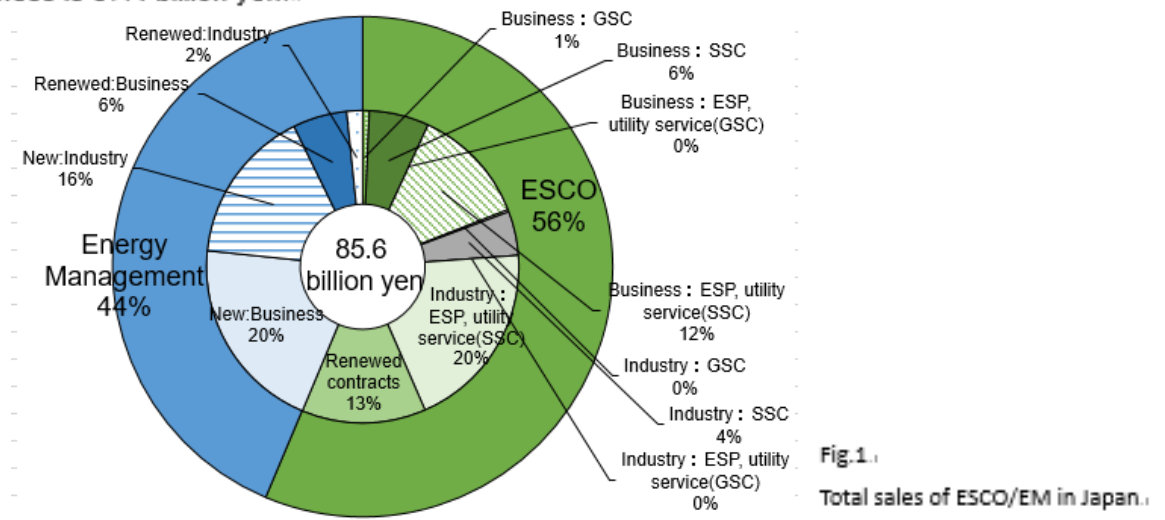


Fig.1 Total sales of ESCO/EM in Japan.

Figure 2 shows the number of contracts for the ESCO/EM business in FY2020. The total number of contracts is 2,404, of which 60 are ESCO projects and 2,344 are energy management projects.

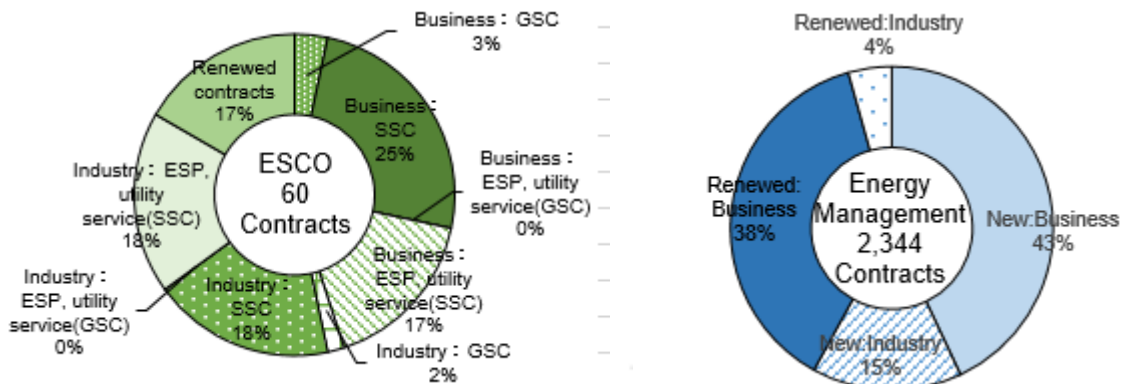


Fig.2 Number of contract of ESCO and EM in Japan.

Figure 3 shows the trend of ESCO market since 1998. Total amount of sales is slightly growing with some fluctuation.

(Billion Yen)

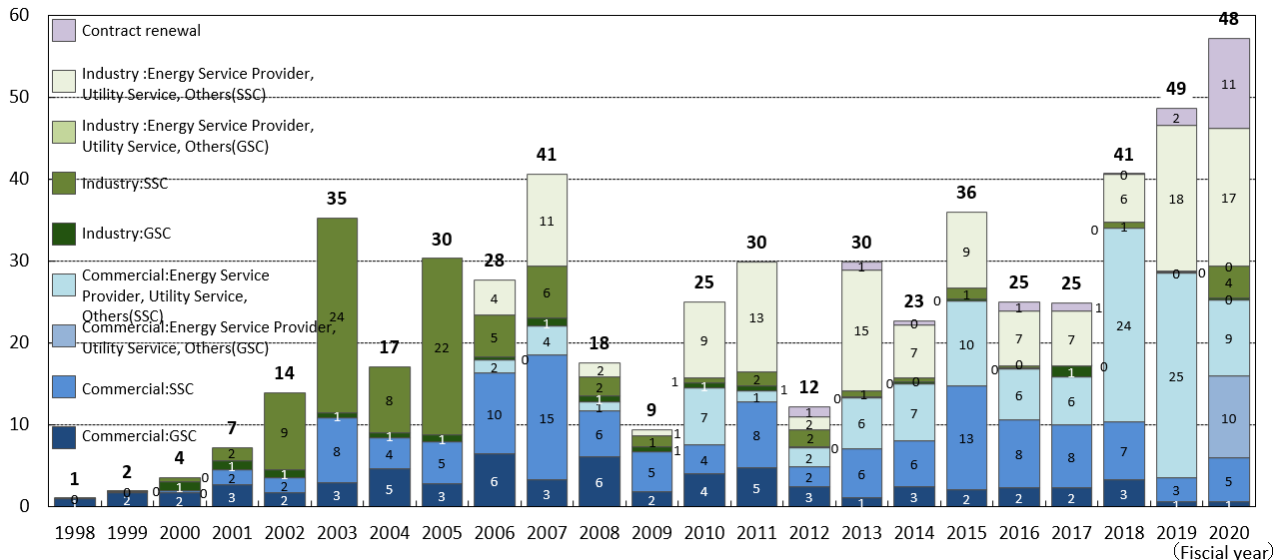


Fig.3 Trend of ESCO market in Japan

Figure 4 shows the trend of number of ESCO projects. Due to the expansion of project size, numbers of projects are decreasing.

(Projects)

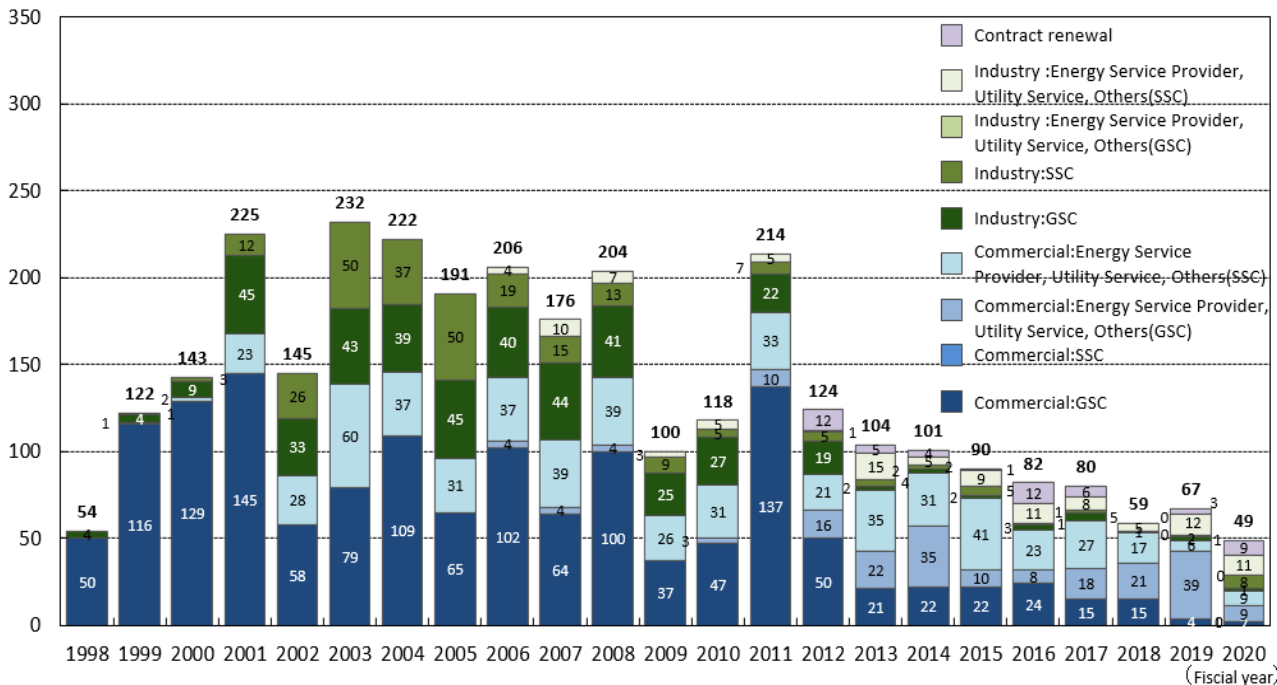


Fig.4 Trend of number of ESCO projects in Japan